



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,074	03/24/2000	Jeffery A. Brown	PD-990197	1834

~~20991~~ ~~7590~~ ~~01/26/2005~~

THE DIRECTV GROUP INC
PATENT DOCKET ADMINISTRATION RE/R11/A109
P O BOX 956
EL SEGUNDO, CA 90245-0956

EXAMINER

BUI, KIEU OANH T

ART UNIT	PAPER NUMBER
----------	--------------

2611

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/536,074

Applicant(s)

BROWN ET AL.

Examiner

KIEU-OANH T BUI

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17-22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Remark

1. Claims 16 and 23 were canceled. Pending claims are claims 1-15, 17-22, and 24-26.

Response to Arguments

2. Applicant's arguments with respect to claims 1-15, 17-22, and 24-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-15, 17-22, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (U.S. Patent No. 6,133,909/ or "Schein" hereinafter) in view of Herz et al. (US Patent 6,088,722).

Regarding claim 1, Schein discloses a program similarity detecting device (Fig. 1, and col. 1/line 57 to col. 2/line 23 for similarity content can be detected) comprising: a receiver adapted to receive an input stream of television program content and electronic program guide data, i.e., receiver 12 (either a computer or within a set top box) receives stream of television program and electronic program guide (col. 3/line 18-35 & col. 4/lines 1-20 as satellite or optical fiber can be used for transmission medium) and adapted to separate the electronic program guide data from the input stream, i.e., besides television programs, the device 12 also provides the

Art Unit: 2611

electronic program guide to the user separately with the OSD (Fig. 3/item 82, and col. 6/line 53 to col. 7/line 5), wherein the program guide data includes a plurality of attributes characterizing television programs within the television program content (as shown in Fig. 9); a memory coupled to the receiver and adapted to store the electronic program guide data (Fig. 3/item 76 for a memory or Fig. 1 with a hard drive 14 coupled to receiver 12); a controller coupled to the memory (Fig. 7/item 404 for a controller coupled to memory 406 or controller 424 coupled to memory 426 of the set top box); and a display coupled to the controller, i.e., a display 400 coupled to the controller (Fig. 7, col. 9/lines 10-56); “wherein the controller is programmed to compare a first set of attributes relating to at least one television program within the television program content to a second set of attributes relating to a second television program within the television program content to determine a correlation between the first set of attributes and the second set of attributes, wherein the controller is programmed to determine whether the second television program is similar to the first television program based on the correlation between the first set of attributes and the second set of attributes, and wherein the controller is programmed to cause the display to generate a first display indicating the second television program if the second television program is determined to be similar to the first television program”, i.e., a first set of attributes such as items 1 & 2 of Figure 9 and a similar second set of attributes are searched and detected for providing favorites as categorized in Fig. 10 (see col. 10/lines 8-65, and col. 11/line 10 to col. 12/line 52 for details on this favorite searching under the control of the controller, col. 9/lines 22-35, based on the similarity of contents of television programs, for instance, same actors or same directors of preferred watching programs, some potential favorite with similarity is offered to the user).

Schein does not provide a further step of “calculate a similarity score for the second television program based on a weighted combination of at least two attributes from the set of attributes” and then the controller is programmed to cause the display “based on the similarity score” as amended by the Applicants; however, Herz, in a same environment of providing program guide to viewers/users/subscribers, teaches a same technique of calculating a similarity score for the second television program based on a weighted combination of at least two attributes from the set of attributes for the service provider to provide appropriate and effective programs/advertisements to viewers or group of viewers (Herz, Figs. 1-3, and col. 35/line 17 to col. 36/line 23 for combination weights on different measures or attributes; and col. 39/line 34 to col. 41/line 33 for agreement matrix which listed similarity of users’ profiles, and the technique of if A prefers to watch this movie, he/she also prefers to watch similar movies or shows based on viewers’ ratings of the movie or show on a scale of 1 to 10 points). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schein’s system with a known technique as taught by Herz in order to provide an enhanced EPG system that offers an effective EPG system providing programs and services to appropriate viewers/users based on the calculation of a similarity score for the second television program based on a weighted combination of at least two attributes from the set of attributes and the display of corresponding programs based on the similarity score.

As for claim 2, in further view of claim 1, the combination of Schein and Herz further discloses “wherein the controller is programmed to cause the display to generate a second display including an explanation describing the similarity score”, i.e., a good review about an interested program can be entered for further viewing by others under the control of the

controller as mentioned in claim 1 (Schein, col. 11/lines 45-62; and Herz, page 41 for the agreement matrix and score, as described in col. 41/lines 1-33).

As for claim 3, in further view of claim 2, the combination of Schein and Herz further discloses “wherein the explanation includes a textual description of the attributes used by the controller when calculating the similarity score” (as shown in Figs. 9 & 9, and col. 11/lines 45-62 for a good reviews in texts for others to view, and under the control of the controller as cited in claim 1; and Herz, page 41 for the agreement matrix and score, as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 4, in further view of claim 1, Schein and Herz further discloses “wherein the plurality of attributes characterizing television programs within the television program content include category information and wherein the controller is programmed to compare category information associated with the first television program to category information associated with the second television program to calculate the similarity score”, i.e., category is addressed as an attribute for the device to search for similar categories (Schein, Fig. 9, and col. 12/lines 17-30, and under the control of the controller as cited in claim 1; and Herz, page 41 for the agreement matrix and score, as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 5, in further view of claim 1, Schein and Herz discloses “wherein the plurality of attributes characterizing television programs within the television program content include keywords and phrases and wherein the controller is programmed to compare keywords and phrases associated with the first television program to keywords and phrases associated with the second television program to calculate the similarity score”, i.e., keywords and phrases are

Art Unit: 2611

used for comparison and matching such as “Anthony Hopkins” in “Legends of the Fall” and further in other program as “Silence of the Lambs” or might be in “The Tonight Show” (Schein, col. 11/line 65 to col. 12/line 16, and under the control of the controller as cited in claim 1; and Herz, page 41 for the agreement matrix and score, as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 6, in further view of claim 1, Schein and Herz further discloses “wherein the plurality of attributes characterizing television programs within the television program content include series information and wherein the controller is programmed to compare series information associated with the first television program to series information associated with the second television program to calculate the similarity score” (Fig. 9/item 910 for series information comparison and matching attributes addressed, col. 11/lines 45-65, and under the control of the controller as cited in claim 1; and Herz, page 41 for the agreement matrix and score, as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 7, in further view of claim 1, Schein and Herz further discloses “wherein the plurality of attributes characterizing television programs within the television program content include group information and wherein the controller is programmed to compare group information associated with the first television program to group information associated with the second television program to calculate the similarity score”, i.e., group information such as categories for Sports or Comedy or Drama, Talk Show and etc. are addressed and used under the controller as cited in claim 1 for a group of people having common interests, not for individual information (Schein, col. 12/lines 17-30; and Herz, page 41 for the agreement matrix and score,

as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 8, in further view of claim 1, Schein and Herz further suggests “wherein the plurality of attributes characterizing television programs within the television program content include credits information and wherein the controller is programmed to compare credits information associated with the first television program to credits information associated with the second television program to calculate the similarity score”, i.e., credits information such as good reviews and recommendations for programs can be recorded and used under the controller, as cited in claim 1, as particular user’s interest for further potential favorite programs with similar contents (Schein, col. 11/lines 28-62; and Herz, page 41 for the agreement matrix and score, as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 9, in further view of claim 1, Schein and Herz further discloses “wherein the plurality of attributes characterizing television programs within the television program content include name information and wherein the controller is programmed to compare name information associated with the first television program to name information associated with the second television program to calculate the similarity score”, i.e., name information is used under the controller as cited in claim 1 for comparing name information (Schein, col. 11/line 65 to col. 12/line 16 for names as “Brad Pitt” and “Julia Ormond”; and Herz, page 41 for the agreement matrix and score for similar programs, as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 10, in further view of claim 1, Schein and Herz further suggests “wherein the controller is programmed to calculate a similarity score for each of a plurality of the television programs included in the television program content by comparing the first set of attributes and a further set of attributes associated with each of the plurality of television programs”, i.e., the user favorite selection stored within the system determine an automatic potential favorite as a similarity score for future potential favorites (Schein, col. 11/lines 28-36; and Herz, page 41 for the agreement matrix and score, as described in col. 35/lines 17-41 and col. 41/lines 1-33 for calculating the similarity score as combined weights).

As for claim 11, in further view of claim 10, Schein suggests “wherein the memory stores a cutoff score and wherein the controller is programmed to compare the similarity scores to the cutoff score and to limit the number of indications of television programs displayed on the display using the cutoff score”, i.e., the memory does not store all of the related programs based on the user’s interests, but instead limiting to the most watched programs or ruling out the casually programs by setting up a criteria of 10 minute watching as a cutoff score to whether to update that program within the system or not (Schein, col. 13/line 49 to col. 14/line 9).

Regarding claim 12, Schein discloses “a method of identifying similar programs within a video reception system comprising the steps of: storing first characterizing information associated with a first television program; receiving further characterizing information associated with each of a set of second television programs; performing a similarity comparison between the first characterizing information and each of the further characterizing information to determine a third set of television programs, wherein the third set of television programs comprises the television programs within the second set of television programs having further

Art Unit: 2611

characterizing information that matches the first characterizing information to a specific degree; and displaying indications of the third set of television programs”, i.e., first characterizing information as criteria selected by the user associated with a first television program, a set of second television programs is a related program associated with the user’s interests, and a third set of television program is potential favorite program within the second set of television program further containing the criteria of the first characterizing information, and the best example for this is on col. 11/line 65 to col. 12/line 16 as explained earlier.

Schein does not provide a further step of “comparing the first charactering information and each of the further characterizing information to determine a similarity score for the second television program, wherein each similarity score is calculated based on a weighted combination of at least two attributes from the set of attributes” and the selecting step for a set of television program and then the controller is programmed to cause the display “based on the similarity scores” as amended by the Applicants; however, Herz, in a same environment of providing program guide to viewers/users/subscribers, teaches a same technique of calculating a similarity score for the second television program based on a weighted combination of at least two attributes from the set of attributes for the service provider to provide appropriate and effective programs/advertisements to viewers or group of viewers (Herz, Figs. 1-3, and col. 35/line 17 to col. 36/line 23 for combination weights on different measures or attributes; and col. 39/line 34 to col. 41/line 33 for agreement matrix which listed similarity of users’ profiles, and the technique of if A prefers to watch this movie, he/she also prefers to watch similar movies or shows based on viewers’ ratings of the movie or show on a scale of 1 to 10 points). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

Schein's system with a known technique as taught by Herz in order to provide an enhanced EPG system that offers an effective EPG system providing programs and services to appropriate viewers/users based on the calculation of a similarity score for the second television program based on a weighted combination of at least two attributes from the set of attributes and the display of corresponding programs based on the similarity score.

As for claims 13-15 and 17-22, these method claims are rejected for the reasons given in the scope of system claims 2-11 as discussed in details above.

Regarding claim 24, Schein discloses "a method of displaying program similarity explanations comprising the steps of: transmitting program guide data, the program guide data including characterizing information for each of a plurality of television programs; receiving the program guide data; storing the program guide data in a memory; identifying a first set of television programs; storing characterizing information for the first set of television programs; correlating the characterizing information of the first set of television programs with characterizing information of a second set television programs" (see claim 1 above); and "displaying an indication of the television programs within the second set of television programs that is correlated to a predetermined degree with the first set of television programs", i.e., an indication such as a reminder of a potential favorite related to the user's interest is about to display to the user (col. 12/lines 53-63).

Schein does not provide a further step of "comparing the first charactering information and each of the further characterizing information to determine a similarity score for the second television program, wherein each similarity score is calculated based on a weighted combination of at least two attributes from the set of attributes" and the selecting step for a set of television

program and then the controller is programmed to cause the display “based on the similarity scores” as amended by the Applicants; however, Herz, in a same environment of providing program guide to viewers/users/subscribers, teaches a same technique of calculating a similarity score for the second television program based on a weighted combination of at least two attributes from the set of attributes for the service provider to provide appropriate and effective programs/advertisements to viewers or group of viewers and the step of storing attribute information (Herz, Figs. 1-3, and col. 35/line 17 to col. 36/line 23 for combination weights on different measures or attributes; and col. 39/line 34 to col. 41/line 33 for agreement matrix which listed similarity of users’ profiles, and the technique of if A prefers to watch this movie, he/she also prefers to watch similar movies or shows based on viewers’ ratings of the movie or show on a scale of 1 to 10 points). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schein’s system with a known technique as taught by Herz in order to provide an enhanced EPG system that offers an effective EPG system providing programs and services to appropriate viewers/users based on the calculation of a similarity score for the second television program based on a weighted combination of at least two attributes from the set of attributes and the display of corresponding programs based on the similarity score.

As for claim 25, in further view of claim 24, Schein suggests “wherein the step of displaying the indication includes displaying an explanation of correlation between the first set of television programs and one of the television programs within the second set of television programs that are correlated to a predetermined degree with the first set of television programs”,

i.e., a good review about an interested program can be entered for further viewing by others under the control of the controller as mentioned in claim 1 (col. 11/lines 45-62).

As for claim 26, in further view of claim 24, Schein discloses “wherein the first set of television programs includes one television program” (as illustrated in Fig. 2 for a TV schedule information includes set of television programs includes one TV program as “I Love Lucy”).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2611

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9306, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (703) 305-0095. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:30 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant, can be reached on (703) 305-4755.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Krista Bui
Art Unit 2611
January 12, 2005



**KRISTA BUI
PATENT EXAMINER**